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Introduction

An innovative system is any conventional or alternative onsite wastewater treatment system (OWTS), or any system having components, not specifically described in the Minimum Construction Standards. An innovative system may be approved, provided adequate data has been provided to demonstrate the treatment and dispersal system would perform equal to or superior to a system described in the minimum standards.

An experimental system is any system that uses components, or processes other than those described in the Minimum Construction Standards, which cannot be approved as an innovative system. Construction permits for experimental systems may be approved as a part of an approved research or testing program.

Duties of Onsite Sewage Program Staff and Office Support

1. Establish guidelines for review of innovative system designs based on system performance;
2. Develop criteria and procedures for review of proposed experimental system testing protocol;
3. Review applications from industry for testing of experimental systems;
4. Provide technical assistance to other DHSS staff and local health departments in reviewing applications for construction permits for E & I systems;
5. Assist other DHSS staff and LPHA staff with oversight of experimental installations;
6. Review research results and test data from experimental systems;
7. If/when experimental system tests demonstrate adequate performance of experimental systems, establish guidelines for approval as innovative systems;
8. Arrange training for regional and LPHA staff on new technologies;
9. Fulfill common responsibilities of LPHA in counties where OWTS are permitted by DHSS.

Duties of other DHSS Staff

1. Provide technical assistance and training to local health departments;
2. Assist central office and local health departments in monitoring of experimental systems;
3. Fulfill common responsibilities of LPHA in counties where onsite sewage programs are administered by DHSS.

Common Responsibilities of Local Public Health Agency:

1. Review applications for innovative systems;
2. Issue construction permits when system designs comply with Minimum Construction Standards and, if applicable, innovative system guidelines;
3. Issue construction permits when applications for experimental systems are consistent with State approved testing protocol;
4. Assist central office and district staff in monitoring the performance of experimental systems;
5. When a system design would be considered experimental, local administrative authorities should refer the designer or manufacturer's representative, and/or forward the system design and application, to the Onsite Sewage Program for review.

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NOTE: It is the responsibility of the Private Sector to submit complete applications for I & E system approval, providing all information required by the administrative authority including, but not limited to:

1. Product name;
2. Name of manufacturer/designer;
3. Contact person and information;
4. Copyright and/or patent information and any restrictions placed on the use of this technology by the manufacturer;
5. A detailed description and design of system or component;
 - a. Include applicable standards and any lab testing of components/materials;
 - b. How does proposed system or component function
 - c. What is the expected performance of the system;
 - d. Describe any approval and field performance experience in other states;
6. Proposed siting criteria, soil limitations, etc.;
 - a. For conventional systems on suitable sites, only a general engineered system or component design is necessary;
 - b. For sites requiring alternative systems, a site-specific engineered design is required;
7. Installation procedures and training requirements for installers;
8. Inspection criteria that should be used to assure proper installation;
9. Operation and maintenance requirements and procedures
10. Expected design life of system or component;
11. Warranty information, if applicable.

Innovative System Guidelines

Approval of innovative systems requires adequate assurance of the performance of the system and public health protection. Field testing of the system or component must demonstrate adequate performance of the specific proposed innovative system – suggested minimum is two years.

Innovative system approval guidelines established by the Onsite Sewage Program will include requirements for:

1. Siting criteria and permit conditions
2. Setback guidelines
3. System sizing
4. System operation and maintenance
5. Monitoring

Experimental System Testing Protocol Review

Applications for approval of experimental system testing protocol must provide additional information including but not limited to:

1. Summary of pertinent literature and previous research testing
2. Identity and qualifications of proposed research or testing organization
3. Proposed testing protocol
4. Any potential problem situations

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Approval of experimental testing protocol by the DHSS Onsite Sewage Program will include:

1. Siting criteria and permit conditions;
 - a. Limited number of systems to be permitted;
 - b. Soil/site limitations;
 - c. Backup system requirements and property owner agreements;
2. Setback guidelines;
3. System sizing;
4. System operation and maintenance;
5. Testing outcomes;
 - a. Monitoring requirements;
 - b. Any modifications to the system or testing protocol must be reviewed and approved;
 - c. Failure of experimental system may require installation of backup system;
6. If/when enough data to be statistically valid substantiates the performance of the system, guidelines for approval as an innovative system will be established.

AUTHORITY

701.033.1.(4) DHSS has the power and duty to authorize trial or experimental systems.

19 CSR 20-3.060 (6)(K) Other Systems – systems of treatment and disposal other than those specifically mentioned in the rule.